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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,627	09/23/2003	Kazuko Shinozaki	382.1029DIV2	7894

23280 7590 05/18/2006		EXAMINER
DAVIDSON, DAVIDSON & KAPPEL, LLC		KRUSE, DAVID H
485 SEVENTH AVENUE, 14TH FLOOR		

ART UNIT	PAPER NUMBER
1638	

DATE MAILED: 05/18/2006

NEW YORK, NY 10018

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/668,627	SHINOZAKI ET AL.
	Examiner	Art Unit	
	David H. Kruse	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>5-8</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>5-8</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>23 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☒ Certified copies of the priority documents have been received in Application No. <u>09/301,217</u>.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/23/2003</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☒ Other: <u>*See Continuation Sheet*</u>.

Continuation of Attachment(s) 6). Other: Search Report for SEQ ID NO: 8 .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102

that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
> title before the invention thereof by the applicant for patent.
> The changes made to 35 U.S.C. § 102(e) by the American Inventors Protection Act of 1999 (AIPA) and
> the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when
> the reference is a U.S. patent resulting directly or indirectly from an international application filed
> before November 29, 2000. Therefore, the prior art date of the reference is determined under 35
> U.S.C. § 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

2.   Claims 5 and 7 are rejected under 35 U.S.C. § 102(e) as being anticipated by

Thomashow *et al* (U.S. Patent 6,417,428 B1, filed 23 November 1998, and claiming

priority as a continuation-in-part to U.S. Patent Application 09/017,816, filed 3 February

1998).

        Thomashow *et al* disclose an isolated DNA encoding the CBF2 transcription

factor of SEQ ID NO: 13 in SEQ ID NO: 12. The amino acid sequence of SEQ ID NO:

13 Thomashow *et al* discloses is identical to SEQ ID NO: 8 disclosed by Applicant.

Thomashow *et al* disclose a transgenic plant transformed with an isolated DNA

encoding SEQ ID NO: 13 operably linked to a stress responsive promoter in Claim 8.

Thomashow *et al* disclose that the promoter would cause higher level of expression to

occur at a given environmental condition such as temperature and/or dryness (column

18, lines 27-30). Hence, all of the claim limitations have been previously disclosed by

Thomashow *et al*. The disclosure of Thomashow *et al* is supported under 35 USC §

112, first paragraph in the parent application U.S. Patent Application 09/017,816 at

page 74 and in Figure 14, which is identical to that in the Thomashow *et al* '428 patent.

The Examiner has attached a copy of the Sequence Search for Applicants' SEQ ID NO:

8 to the instant Office action for Applicants' convenience.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable

over Thomashow *et al* (U.S. Patent 6,417,428 B1, filed 23 November 1998, and

claiming priority as a continuation-in-part to U.S. Patent Application 09/017,816, filed 3

February 1998).

The teachings of Thomashow *et al* are discussed above.

Thomashow *et al* do not teach the complete DNA sequence of Applicants' SEQ

ID NO: 7, only the coding sequence of the encoded protein in SEQ ID NO: 12 of

Thomashow *et al*.

The instant claims would have been *prima facie* obvious to one of ordinary skill in

the art at the time of Applicant's invention because it is unclear from Applicants'

teachings if there is any showing of unexpected results by transforming a plant with a

DNA comprising the nucleotide sequence as show in Applicants' SEQ ID NO; 7 as

opposed to a DNA comprising the coding sequence, nucleotide sequence as show in

Thomashow *et al* in SEQ ID NO: 12.

5.   Claims 5-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu

et al (The Plant Cell August 1998, 10: 1391-1406) in view of Shinwari *et al* (Biochem.

Biophys. Res. Comm. September 1998, 250: 161-170).

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that

was not commonly owned at the time a later invention was made in order for the

examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. §

102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Applicant cannot rely upon the foreign priority papers to overcome this rejection

because a translation of said papers has not been made of record in accordance with

37 CFR § 1.55. See MPEP § 201.15.

Liu *et al* teaches a transgenic plant transformed with a DNA encoding a

transcription factor protein consisting of the amino acid sequence as shown in SEQ ID

NO: 2 (DREB1A) operably linked to the rd29A promoter, that regulates the transcription

of genes located downstream of a stress responsive element, wherein the stress is

dehydration stress, low temperature stress or salt stress (see Methods on pages 1402-

1405).

Liu *et al* does not teach a DNA encoding the amino acid sequence of SEQ ID

NO: 8 or the DNA sequence of SEQ ID NO: 7.

Shinwari *et al* teach a DNA comprising the sequence of SEQ ID NO: 7 in Figure

5 on page 164.

It would have been *prima facie* obvious to one of ordinary skill in the art at the

time of Applicant's invention to modify the teachings of Liu *et al* to transform a plant with

a DNA encoding a DREB transcription factor using the DNA taught by Shinwari *et al*.

Shinwari *et al* teach that the DREB1C is more strongly expressed and that transforming

a plant would be desirable to make stress tolerant transgenic plants (see pages 168-

169). Given the success of Liu *et al*, one of ordinary skill in the art would have had a

reasonable expectation of success.

Double Patenting

6.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees.   A nonstatutory
obviousness-type double patenting rejection is appropriate where the conflicting claims
are not identical, but at least one examined application claim is not patentably distinct
from the reference claim(s) because the examined application claim is either anticipated
by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140
F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.
1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422
F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).
        A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)
may be used to overcome an actual or provisional rejection based on a nonstatutory
double patenting ground provided the conflicting application or patent either is shown to
be commonly owned with this application, or claims an invention made as a result of
activities undertaken within the scope of a joint research agreement.
        Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

7.   Claims 5-8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,045,355. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed transformed host cell and vector comprising SEQ ID NO: 7 renders obvious the transgenic plant of the instant application.

Conclusion
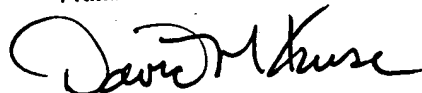
8.   No claims are allowed.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The fax telephone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-0547.

DAVID H. KRUSE, PH.D.
PRIMARY EXAMINER

David H. Kruse, Ph.D.
3 May 2006

10.   Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

      Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

      For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

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OM protein - protein search, using sw model

                    Copyright (c) 1993 - 2006 Bioacceleration Ltd.

                    GenCore version 5.1.7

Run on:             April 26, 2006, 12:23:21 ; Search time 23 Seconds
                                               (without alignments)
                                               776.432 Million cell updates/sec

Title:              US-10-668-627-8
Perfect score:      1146
Sequence:           1 MNSFSAFSEMFGGSDYESPVS..........VQWNYNFDVEGDDDVSLWSY 216

Scoring table:      BLOSUM62
                    Gapop 10.0 , Gapext 0.5

Searched:           572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters:      572060

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :       Issued Patents AA:*
                 1: /cgn2_6/ptcdata/1/iaa/5_COMB.pep:*
                 2: /cgn2_6/ptcdata/1/iaa/6_COMB.pep:*
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                 4: /cgn2_6/ptcdata/1/iaa/PCTUS_COMB.pep:*
                 5: /cgn2_6/ptcdata/1/iaa/RE_COMB.pep:*
                 6: /cgn2_6/ptcdata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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SUMMARIES

Result No.	Score	% Query Match	Match Length	DB	ID	Description
1	1146	100.0	216	2	US-09-198-119C-13	Sequence 13, Appl
2	1146	100.0	216	2	US-09-301-666A-8	Sequence 8, Appl
3	1146	100.0	216	2	US-09-301-217-8	Sequence 8, Appl
4	1146	100.0	216	2	US-09-601-802D-13	Sequence 13, Appl
5	984.5	85.9	213	1	US-08-949-603-2	Sequence 2, Appl
6	984.5	85.9	213	1	US-08-706-270A-2	Sequence 2, Appl
7	984.5	85.9	213	1	US-08-949-580-2	Sequence 2, Appl
8	984.5	85.9	213	1	US-08-950-172A-2	Sequence 2, Appl
9	984.5	85.9	213	2	US-09-198-119C-2	Sequence 2, Appl
10	984.5	85.9	213	2	US-09-301-666A-6	Sequence 6, Appl
11	984.5	85.9	213	2	US-09-301-217-6	Sequence 6, Appl
12	984.5	85.9	213	2	US-09-601-802D-2	Sequence 2, Appl
13	982	85.7	216	2	US-09-198-119C-15	Sequence 15, Appl
14	982	85.7	216	2	US-09-301-666A-2	Sequence 2, Appl
15	982	85.7	216	2	US-09-301-217-2	Sequence 2, Appl
16	982	85.7	216	2	US-09-601-802D-15	Sequence 15, Appl
17	837	73.0	209	2	US-09-198-119C-93	Sequence 93, Appl
18	837	73.0	209	2	US-09-601-802D-93	Sequence 93, Appl
19	830.5	72.5	213	2	US-09-198-119C-59	Sequence 59, Appl
20	830.5	72.5	213	2	US-09-601-802D-59	Sequence 59, Appl
21	818	71.4	250	2	US-09-198-119C-71	Sequence 71, Appl
22	818	71.4	250	2	US-09-601-802D-71	Sequence 71, Appl
23	817	71.3	250	2	US-09-198-119C-53	Sequence 53, Appl
24	817	71.3	250	2	US-09-601-802D-53	Sequence 53, Appl
25	795.5	69.4	251	2	US-09-198-119C-87	Sequence 87, Appl
26	795.5	69.4	251	2	US-09-601-802D-87	Sequence 87, Appl
27	786.5	68.6	277	2	US-09-198-119C-69	Sequence 69, Appl
28	786.5	68.6	277	2	US-09-601-802D-69	Sequence 69, Appl
29	785.5	68.5	251	2	US-09-198-119C-55	Sequence 55, Appl
30	785.5	68.5	251	2	US-09-601-802D-55	Sequence 55, Appl
31	780.5	68.1	255	2	US-09-198-119C-83	Sequence 83, Appl
32	780.5	68.1	255	2	US-09-601-802D-83	Sequence 83, Appl
33	776.5	67.8	283	2	US-09-198-119C-49	Sequence 49, Appl
34	776.5	67.8	283	2	US-09-601-802D-49	Sequence 49, Appl
35	775.5	67.7	252	2	US-09-198-119C-91	Sequence 91, Appl
36	775.5	67.7	252	2	US-09-601-802D-91	Sequence 91, Appl
37	775.5	67.7	277	2	US-09-198-119C-61	Sequence 61, Appl
38	775.5	67.7	277	2	US-09-601-802D-61	Sequence 61, Appl
39	769.5	67.1	277	2	US-09-198-119C-57	Sequence 57, Appl
40	769.5	67.1	277	2	US-09-601-802D-57	Sequence 57, Appl
41	768	67.0	258	2	US-09-198-119C-85	Sequence 85, Appl
42	768	67.0	258	2	US-09-601-802D-85	Sequence 85, Appl
43	765.5	66.8	280	2	US-09-198-119C-77	Sequence 77, Appl
44	765.5	66.8	280	2	US-09-601-802D-77	Sequence 77, Appl
45	760.5	66.4	283	2	US-09-198-119C-63	Sequence 63, Appl

ALIGNMENTS

```
RESULT 1
US-09-198-119C-13

; Sequence 13, Application US/09198119C
; Patent No. 6417428
; GENERAL INFORMATION:
;  APPLICANT: Thomashow, Michael
;  APPLICANT: Stockinger, Eric
;  APPLICANT: Jaglo-Ottosen, Kirsten
;  APPLICANT: Gilmour, Sarah
;  APPLICANT: Zarka, Daniel
;  APPLICANT: Jiang, Cai-Zhong
;  TITLE OF INVENTION: Plant Having Altered Environmental Stress Tolerance
;  FILE REFERENCE: 19117.713 Seq List
;  CURRENT APPLICATION NUMBER: US/09/198,119C
;  CURRENT FILING DATE: 1998-11-23
;  PRIOR APPLICATION NUMBER: US 08/706,270
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/017,575
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/018,227
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/018,233
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/018,234
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/017,816
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/018,235
;  PRIOR FILING DATE: 1998-02-03
;  PRIOR APPLICATION NUMBER: US 09/018,233
;  PRIOR FILING DATE: 1998-09-04
;  NUMBER OF SEQ ID NOS: 95
;  SOFTWARE: Patentin Ver. 2.0
;
; SEQ ID NO 13
;  LENGTH: 216
;  TYPE: PRT
;  ORGANISM: Arabidopsis thaliana
;  FEATURE:
;  OTHER INFORMATION: CBF2
US-09-198-119C-13

  Query Match          100.0%;  Score 1146;  DB 2;  Length 216;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-121;
  Matches 216;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 2
US-09-301-666A-8
Sequence 8, Application US/09301666A
Patent No. 6495742
GENERAL INFORMATION:
APPLICANT: SHINOZAKI, Kazuko
APPLICANT: KASUGA, Mie
TITLE OF INVENTION: Genes Encoding Plant Transcription factors
FILE REFERENCE: 382.1028
CURRENT APPLICATION NUMBER: US/09/301,666A
CURRENT FILING DATE: 1999-04-28
PRIOR APPLICATION NUMBER: JP228457/1998
PRIOR FILING DATE: 1998-08-12
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 8
LENGTH: 216
TYPE: PRT
ORGANISM: Arabidopsis thaliana

Query Match   100.0%; Score 1146; DB 2; Length 216;
Best Local Similarity 100.0%; Pred. No. 2.9e-121;
Matches 216; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy    181  SLLDNMAEGMLLPSPSVQWNYNFDVEGDDDVSLWSY  216
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Db    181  SLLDNMAEGMLLPSPSVQWNYNFDVEGDDDVSLWSY  216
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RESULT 3
US-09-301-217-8
Sequence 8, Application US/09301217
Patent No. 6670528
GENERAL INFORMATION:
APPLICANT: Kazuko, SHINOZAKI
APPLICANT: Mie, KASUGA
TITLE OF INVENTION: Environmental Stress-tolerant Plant
FILE REFERENCE: 382.1029
CURRENT APPLICATION NUMBER: US/09/301,217
CURRENT FILING DATE: 1999-04-28
PRIOR APPLICATION NUMBER: JP292348/1998
PRIOR FILING DATE: 1998-10-14
NUMBER OF SEQ ID NOS: 23
SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 8
LENGTH: 216
TYPE: PRT
ORGANISM: Arabidopsis thaliana

Query Match   100.0%; Score 1146; DB 2; Length 216;
Best Local Similarity 100.0%; Pred. No. 2.9e-121;
Matches 216; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy     61  KWVCELREPNKKTRIWLGTFQTAEMAARAHDVAAIALRGRSACLNFADSAWRLRIPESTC  120
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Db     61  KWVCELREPNKKTRIWLGTFQTAEMAARAHDVAAIALRGRSACLNFADSAWRLRIPESTC  120

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Qy    181  SLLDNMAEGMLLPSPSVQWNYNFDVEGDDDVSLWSY  216
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RESULT 4
US-09-601-802D-13
Sequence 13, Application US/09601802D
Patent No. 6706866
GENERAL INFORMATION:
APPLICANT: Thomashow, Michael
APPLICANT: Stockinger, Eric
APPLICANT: Jaglo-Ottosen, Kirsten
APPLICANT: Gilmour, Sarah
APPLICANT: Zarka, Daniel
APPLICANT: Jiang, Cai-Zhong
APPLICANT: Zhang, James
APPLICANT: Haake, Volker
TITLE OF INVENTION: PLANT HAVING ALTERED ENVIRONMENTAL
TITLE OF INVENTION: STRESS TOLERANCE
FILE REFERENCE: 51442002001/MBI0029
CURRENT APPLICATION NUMBER: US/09/601,802D
CURRENT FILING DATE: 2000-09-15
PRIOR APPLICATION NUMBER: 09/018,233
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/017,816
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/018,235
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/018,227
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/017,575
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/018,234
PRIOR FILING DATE: 1998-02-03
PRIOR APPLICATION NUMBER: 09/198,119
PRIOR FILING DATE: 1998-11-23
NUMBER OF SEQ ID NOS: 259
SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 13
LENGTH: 216
TYPE: PRT
ORGANISM: Arabidopsis thaliana

Query Match   100.0%; Score 1146; DB 2; Length 216;
Best Local Similarity 100.0%; Pred. No. 2.9e-121;
Matches 216; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1  MNSFSAFSEMFGSDYESPVSSGGGDYSPKLATSCPKKPAGRKKFRETRHPIYRGVRQRNSG  60
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Db      1  MNSFSAFSEMFGSDYESPVSSGGGDYSPKLATSCPKKPAGRKKFRETRHPIYRGVRQRNSG  60

Qy     61  KWVCELREPNKKTRIWLGTFQTAEMAARAHDVAAIALRGRSACLNFADSAWRLRIPESTC  120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61  KWVCELREPNKKTRIWLGTFQTAEMAARAHDVAAIALRGRSACLNFADSAWRLRIPESTC  120

Qy    121  AKEIQKAAAEAALNFQDEMCHMTTDAHGLDMEETLVEAIYTPEQSQDAFYMDEEAMLGMS  180
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121  AKEIQKAAAEAALNFQDEMCHMTTDAHGLDMEETLVEAIYTPEQSQDAFYMDEEAMLGMS  180

Qy    181  SLLDNMAEGMLLPSPSVQWNYNFDVEGDDDVSLWSY  216
           |||||||||||||||||||||||||||||||||||
Db    181  SLLDNMAEGMLLPSPSVQWNYNFDVEGDDDVSLWSY  216
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